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U.S. Department
of Transportation

**Federal Aviation
Administration**

PRIVATE PILOT – AIRPLANE

Airman Certification Standards

Date TBD

FLIGHT STANDARDS SERVICE
Washington, DC 20591

ACKNOWLEDGEMENTS

The U.S. Department of Transportation, Federal Aviation Administration, Airman Testing Standards Branch, AFS-630, P.O. Box 25082, Oklahoma City, OK 73125 developed this ACS with the assistance of the aviation community. The FAA gratefully acknowledges the valuable support from the many individuals and organizations who contributed their time and expertise to assist in this endeavor.

AVAILABILITY

This ACS is available for download from www.faa.gov. Please send comments regarding this document to AFS630comments@faa.gov.

FOREWORD

The Federal Aviation Administration (FAA) has published the Private Pilot—Airplane Airman Certification Standards (ACS) document to communicate the aeronautical knowledge, flight proficiency, and risk management standards for private pilot certification in the airplane category, single-engine land and sea; and multiengine land and sea classes.

The FAA views the ACS as the foundation of its transition to a more integrated and systematic approach to airman certification testing and training. The ACS is part of the safety management system (SMS) framework that the FAA uses as a systematic approach to achieving acceptable levels of safety risk. Specifically, the ACS, associated guidance, and test item bank question components of the airman certification system are constructed around the four functional components of an SMS:

- Safety Policy that defines and describes aeronautical knowledge, flight proficiency, and risk management as integrated components of the airman certification system;
- Safety Risk Management processes through which internal and external stakeholders identify and evaluate regulatory changes, safety recommendations, or other factors that require modification of airman testing and training materials;
- Safety Assurance processes to ensure the prompt and appropriate incorporation of changes arising from new regulations and safety recommendations; and
- Safety Promotion in the form of ongoing engagement with both external stakeholders (e.g., the aviation training industry) and FAA policy divisions.

In this connection, the FAA gratefully acknowledges and deeply appreciates the many hours that aviation training experts throughout the industry have contributed to the development of this ACS, along with the associated guidance and a more systematic approach to knowledge test question development. This kind of collaboration, a hallmark or a robust safety culture, strengthens and enhances aviation safety at every level of the airman certification system.

John M. Allen
Director, Flight Standards Service

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INTRODUCTION

Airman Certification Standards Concept

The goal of the airman certification process is to ensure the applicant is ready to safely manage the risks of flight as pilot-in-command, consistent with the privileges of the certificate or rating being exercised. In fulfilling its responsibilities for the airman certification process, the Federal Aviation Administration (FAA) Flight Standards Service (AFS) plans, develops, and maintains materials related to airman certification training and testing.

Historically, these materials have included several components. The FAA knowledge test measures mastery of the aeronautical knowledge areas listed in Title 14 of the Code of Federal Regulations (14 CFR) part 61. The Practical Test Standards (PTS) define the acceptable parameters of flight proficiency in the Areas of Operation listed in14 CFR part 61. FAA H-series handbooks, test supplements, and other materials provide guidance to applicants, instructors, and evaluators on aeronautical knowledge, flight proficiency, and risk management.

The FAA recognizes that safe operations in today's complex National Airspace System (NAS) require a more systematic integration of aeronautical knowledge, flight proficiency standards, and risk management. The FAA further recognizes the need to more clearly calibrate knowledge, skills, and risk management according to the level of the certificate or rating. To that end, the FAA drew upon the expertise of organizations and individuals across the aviation community to develop the Airman Certification Standards (ACS).

Based on aeronautical knowledge and flight proficiency standards specified in 14 CFR part 61, the ACS integrates the knowledge, skills, and risk management abilities necessary for the safe conduct of each Task. In keeping with this integrated and systematic approach, the knowledge, skills, and risk management sections of each Task stipulate that the applicant must demonstrate understanding of each specific item. The applicant demonstrates this understanding by passing the knowledge exam and practical test.

Throughout this process, the FAA expects evaluators to assess the applicant's mastery of the topic in accordance with the level of learning (i.e., rote, understanding, application, or correlation) most appropriate for the specified Task. For some topics, the evaluator will ask the applicant to describe or explain. For other items, the evaluator will assess the applicant's understanding by providing a scenario that requires the applicant to appropriately apply and/or correlate knowledge, experience, and information to the circumstances of the given scenario. The flight portion of the practical test requires the applicant to demonstrate flight proficiency, operational skill, and risk management in accordance with the ACS. (Note: As used in this ACS, an evaluator is any person authorized to conduct airman testing (e.g., an FAA aviation safety inspector, designated pilot examiner, or other individual authorized to conduct a practical test.)

Using the ACS

The ACS consists of ***Areas of Operation,*** arranged in a logical sequence that begins with Preflight Preparation and ends with Postflight Procedures. Each Area of Operation includes ***Tasks*** appropriate to that Area of Operation. Each Task begins with an ***Objective*** stating what the applicant should know and/or do. The ACS then lists the aeronautical knowledge, skills, and risk management considerations relevant to the specific Task, along with the conditions and acceptable standards for performance. The ACS uses ***Notes*** to emphasize special considerations. The FAA will revise the ACS as circumstances require.

Practical Tests will be based on the ACS in effect the day of the test. The FAA encourages applicants and instructors to use the ACS to measure progress during training, and as a reference to ensure the applicant is adequately prepared for the knowledge and practical tests.

The FAA expects evaluators to adhere to 14 CFR and this ACS. The ACS uses the terms "will" and "must" to convey directive (mandatory) information. The terms "should" and "may" denote items that are recommended, but not required.

The applicant must pass the knowledge test before taking the practical test. Further, the applicant must pass the oral portion of the practical test before beginning the flight portion because the oral portion of the practical test allows the evaluator to determine whether the applicant is sufficiently prepared to advance to the flight portion of the practical test.

SECTION 1: AIRPLANE—SINGLE ENGINE LAND AREAS OF OPERATION

I. Preflight Preparation

Task	***A. Pilot Qualifications***
Reference	14 CFR parts 61, 91; FAA-H-8083-25
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with airman and medical certificates including privileges, limitations, currency, and operating as pilot-in-command as a private pilot.
Knowledge	The applicant demonstrates understanding of: 1. Currency, regulatory compliance, privileges and limitations. 2. Location of documents and identification required when exercising privileges. 3. Inspection of certificate. 4. Pilot logbook/record-keeping. 5. Compensation. 6. Towing. 7. Category and Class. 9. Endorsements. 10. Medical Certificates: class, expiration, privileges, temporary disqualifications. 11. Drugs, alcohol regulatory restrictions that affect the pilot's ability to operate safely.
Skills	The applicant demonstrates the ability to apply requirements to act as PIC under VFR in a scenario given by the evaluator.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Distinguishing proficiency vs. currency. 2. Setting personal minimums and accounting for pilot physiology. 3. Maintaining compliance with medical certificates. 4. Over the Counter medications. 5. Flying with unfamiliar flight display systems or advanced avionics.

Task	***B. Airworthiness Requirements***
Reference	14 CFR parts 39, 43, 91; FAA-H-8083-25
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with airworthiness requirements, including aircraft certificates and checklist compliance.
Knowledge	The applicant demonstrates understanding of: 1. General airworthiness requirements and compliance for airplanes. a. Certificate location and expiration dates b. Required inspections c. Inspection requirements 2. Individuals who can perform maintenance on the aircraft, including A&P and IA roles in aircraft maintenance. 3. Pilot-performed preventative maintenance. 4. Equipment requirements for flight including flying with inoperative equipment (approved Minimum Equipment List (MEL), Kinds of Operation Equipment List (KOEL), required equipment for VFR flight, required equipment, placards). 5. Proving airworthiness (specifics of the aircraft–compliance with Airworthiness Directives or Safety Bulletins. 6. Obtaining a special flight permit 7. Experimental aircraft airworthiness. 8. Equipment malfunctions.
Skills	The applicant demonstrates the ability to: 1. Locate aircraft airworthiness information. 2. Determine the aircraft is airworthy in a scenario given by the evaluator. 3. Explain conditions where flight can be made with inoperative equipment.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Flying with inoperative equipment. 2. Equipment failure in flight. 3. Proper reporting of discrepancies or placards.

Task	*C. Weather Information*
Reference	14 CFR part 91; AC 00-6, AC 00-45, FAA-H-8083-25; AIM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with weather information for a flight under visual flight rules (VFR).
Knowledge	The applicant demonstrates understanding of: 1. Weather products required for preflight planning, enroute operations, and proceeding to the destination or alternate upon arrival. 2. Current and forecast weather for departure, arrival, enroute phases of flight. 3. Meteorology as applicable to local, departure, enroute, alternate, and destination of VFR flight in VMC to include expected climate and hazardous conditions such as: a. Atmospheric composition and stability b. Wind c. Temperature d. Moisture e. Weather system formation, including air masses and fronts f. Clouds g. Turbulence h. Thunderstorms i. Wind shear j. Icing k. Fog l. Frost 4. Equipment available enroute to aid weather assessment and route selection.
Skills	The applicant demonstrates the ability to: 1. Use available aviation weather resources to obtain an adequate weather briefing. 2. Correlate weather information to determine alternate requirements. 3. Correlate available weather information to make a competent go-no-go decision. 4. Perform procedures to update/interpret weather in flight. 5. Given scenario, divert. 6. Evaluate environmental conditions using valid and reliable information sources to be able to make a competent go/no go or diversion decision.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Making a valid go/no go decision. 2. Weather in flight. 3. Dynamic weather affecting flight. 4. Limitations of portable weather equipment. 5. Limitations of aviation weather reports and forecasts. 6. Limitations of inflight aviation weather resources. 7. Identifying alternate airports along the intended route of flight and circumstances that would make diversion prudent. 8. Identifying weather conditions that may affect the planned flight.

Task	***D. Cross-Country Flight Planning***
Reference	14 CFR part 91; FAA-H-8083-25; Navigation Charts; AFD; AIM; NOTAMS
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with cross-country flights and VFR flight planning.
Knowledge	The applicant demonstrates understanding of: 1. Route planning. 2. Applying universal coordinated time to flight planning 3. Converting and calculating time relative to time zones and ETA. 4. Calculating heading, speed, course. 5. Calculating time, rate, distance. 6. Fuel planning. 7. Altitude selection accounting for terrain and obstacles, glide distance of aircraft, hemispherical rules, and effect of wind. 8. Conditions conducive to icing. 9. Symbology found on VFR charts. 10. Elements of a VFR flight plan. 11. Procedures for activating a VFR flight plan in controlled and non-controlled airspace.
Skills	The applicant demonstrates the ability to: 1. Prepare a cross-country flight assigned by the evaluator. 2. Transfer knowledge used for one region to another region (given local climate, terrain, etc.). 3. Update fuel planning/manage fuel. 4. Select appropriate routes, altitudes, and checkpoints. 5. Recalculate fuel reserves based on a scenario provided by the evaluator. 6. Create and file a VFR flight plan. 7. Interpret departure, enroute, arrival, route with reference to proper charts. 8. Demonstrate diversion to alternate.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Pilot. 2. Aircraft. 3. Environment. 4. External pressures. 5. Lack of appropriate training when flight is planned in an area different from local area such as mountains, high density airspace, or Alaska. 6. Tendency to complete the flight in spite of changing conditions. 7. Not maintaining appropriate VFR altitudes for the direction of flight. 8. Limitations of ATC services. 9. Not establishing conservative fuel reserves. 10. Planning a route overflying significant environmental influences, such mountains, and large bodies of water. 11. Overflying areas unsuitable for landing or below personal minimums.

Task	*E. National Airspace System*
Reference	14 CFR parts 71, 91, 93; Navigation Charts; AIM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with the National Airspace System operating under VFR as a private pilot.
Knowledge	The applicant demonstrates understanding of: 1. Kinds of airspace/airspace classes. 2. Charting symbology. 3. Requirements for flying in that airspace. 4. Special use airspace. 5. Temporary flight restrictions.
Skills	The applicant demonstrates the ability to: 1. Determine the requirements for flying in particular class of airspace. 2. Determine the requirements for special use airspace, special flight rules areas, and other airspace areas. 3. Properly identify airspace and operate accordingly with regards to communication and equipment requirements.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Various classes of airspace. 2. Maintaining VFR at night underneath airspace. 3. Special use airspace. 4. Effectively planning for compliance with or avoidance of specific enroute airspace.

Task	***F. Performance and Limitations***
Reference	FAA-H-8083-1, FAA-H-8083-25; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with operating an aircraft safely within the parameters of the aircraft performance capabilities and limitations.
Knowledge	The applicant demonstrates understanding of: 1. Elements related to performance and limitations (takeoff and landing, crosswind and headwind, density altitude, glide performance, weight and balance, climb, cruise, descent) by explaining the use of charts, tables, and data to determine performance. 2. Factors affecting performance to include atmospheric conditions, pilot technique and aircraft condition, airport environment. 3. Effects of adverse loading (weight and balance). 4. Effects of weight and balance over the course of the flight. 5. Aerodynamics.
Skills	The applicant demonstrates the ability to: 1. Given scenario, compute weight and balance, including practical techniques to resolve out-of-limits calculations. 2. Use aircraft manufacturer's approved performance charts, tables, and data. 3. Evaluate takeoff and landing performance based on the values calculated. 4. Evaluate environmental conditions.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Performance charts. 2. Exceeding limitations. 3. Variations in flight performance resulting in operational loads. 4. Applying published aircraft performance data to expected performance.

Task	***G. Operation of Systems***
Reference	FAA-H-8083-25; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with the safe operation of systems on the airplane provided for the flight test.
Knowledge	The applicant demonstrates understanding of: 1. Major components of the systems: a. Primary flight controls and trim b. Flaps, leading edge devices, and spoilers c. Powerplant and propeller (basic engine knowledge) d. Landing gear e. Fuel, oil, and hydraulic f. Electrical g. Avionics h. Pitot-static, vacuum/pressure and associated flight instruments i. Environmental j. Deicing and anti-icing 2. Normal operation of systems. 3. Common mistakes made by pilots (operator error). 4. Abnormal operation of systems. 5. Systems interaction.
Skills	The applicant demonstrates the ability to: 1. Explain operation of systems/operate systems. 2. Use checklist procedures. 3. Use checklist memory items during emergency operations, as applicable.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Handling a failure properly. 2. Pilot error, including improperly operating the system that creates failure or problem. 3. Determining and/or declaring an emergency. 4. Ways to identify system failure, recognizing problems as they develop. 5. Outside/environmental factors affecting the systems, including improper fueling, carburetor ice, extremely cold temperatures, vapor lock.

Task	***H. Human Factors***
Reference	FAA-H-8083-25; AIM
Airman Test Report	
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with personal health, flight physiology and human factors, as it relates to safety of flight.
Knowledge	The applicant demonstrates understanding of: 1. The symptoms, recognition, causes, effects, and corrective actions associated with:(Require all) a. hypoxia b. hyperventilation c. middle ear and sinus problems d. spatial disorientation e. motion sickness f. carbon monoxide poisoning g. stress and fatigue h. dehydration and nutrition i. medication (OTC and Prescription) j. hypothermia 2. The effects of alcohol, drugs, and over-the-counter medications, and associated regulations. 3. The effects of excess nitrogen during scuba dives upon a pilot or passenger in flight. 4. Aeronautical decision-making as affected by hazardous attitudes. 5. Vision (including optical illusion, environmental impacts, day/night, haze, sloping runways). 6. Collision Avoidance (CFIT, scanning, wire strike avoidance).
Skills	The applicant demonstrates the ability to: 1. Perform self-assessment including whether he or she is fit for flight. 2. Show sound decision-making and judgment (based on reality of circumstances). 3. Perform SRM tasks: ADM, risk management, automation management, task management, situational awareness, and CFIT. 4. Using examples, account for environmental impacts/visual cues at the airport, as well as at one airport vs. a different airport. 5. Establish personal limitations.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Environmental impacts on medication. 3. Personal risk factors and the conflict between being goal oriented and personal limitations. 4. Optical illusions, including awareness, being able to anticipate, and limiting the effects. 5. Circumstances of the flight (day/night, hot/cold) that affect the pilot's physiology. 6. Inadvertent continued VFR into IMC (check Weather)

II. Preflight Procedures

Task	***A. Preflight Assessment***
Reference	FAA-H-8083-3, FAA-H-8083-23; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with preparing for safe flight accounting for pilot, aircraft, environment, and external factors.
Knowledge	The applicant demonstrates understanding of: 1. Pilot self-assessment. 2. Determining an appropriate aircraft for the mission by considering sufficient load, range, equipment, and altitude capability. 3. Aircraft preflight inspection including which items must be inspected, the reasons for checking each item, and how to detect possible defects, and the associated regulations. 4. Environmental factors including weather and flight plan (terrain, route selection, obstructions). 5. External pressures.
Skills	The applicant demonstrates the ability to: 1. Use checklist to systematically identify and manage pilot-related risks and personal minimums associated with the flight. 2. Inspect the airplane with reference to an appropriate checklist. 3. Verify the airplane is airworthy and in condition for safe flight. 4. Assess the factors related to the environment (weather, airports, terrain, airspace).
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Environmental factors. 2. External pressures. 3. Aviation security concerns.

Task	***B. Cockpit Management***
Reference	FAA-H-8083-3; POH/AFM; AC 91-21.1
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with safe cockpit management practices.
Knowledge	The applicant demonstrates understanding of: 1. Pilot and passenger restraint and safety system rules and operational considerations. 2. Oxygen use regulations, system operational guidelines, and system checks, if applicable. 3. Passenger briefing requirements and appropriate information. 4. PIC responsibility to have available material for the flight as planned. 5. Establishing and logging PIC for the flight.
Skills	The applicant demonstrates the ability to: 1. Ensure all loose items in the cockpit and cabin are secured. 2. Organize, access, and determine suitability of material, equipment, and technology in an efficient manner. 3. Brief occupants on the use of safety belts, shoulder harnesses, doors, sterile cockpit, flight control freedom of movement, and emergency procedures. 4. Properly program the navigational equipment available to the pilot on that particular aircraft. 5. Brief and execute positive exchange of flight controls and PIC responsibility.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Positive exchange of the flight controls. 2. Suitability of using portable electronic devices. 3. Ensuring technology is an asset and not a distraction. 4. Abandoning technology when it is not appropriate. 5. Recognizing impact of reported discrepancies.

Task	*C. Engine Starting*
Reference	FAA-H-8083-3, FAA-H-8083-25; AC 91-13, AC 91-55; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with recommended engine starting procedures including proper airplane positioning.
Knowledge	The applicant demonstrates understanding of: 1. Options for starting with a weak or depleted battery. 2. Starting under various atmospheric conditions. 3. Starting procedures for airplane being flown including awareness that there are differences between carbureted and fuel injected engines. 4. Equipment limitations (starter cycles). 5. Proper positioning of the aircraft.
Skills	The applicant demonstrates the ability to: 1. Position the airplane properly considering structures, other aircraft, and the safety of nearby persons and property. 2. Utilize the appropriate checklist for starting procedure.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Propeller safety and awareness to include passenger briefing. 2. Hand propping. 3. Abnormal start.. 4. Cold weather operation. 5. Electrical system failure following aircraft engine starts.

Task	***D. Taxiing***
Reference	AFD; FAA-H-8083-3, FAA-H-8083-25; POH/AFM; AC 91-73, AC 150-5340-18
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with safe taxi operations, including runway incursion avoidance.
Knowledge	The applicant demonstrates understanding of: 1. Positioning aircraft controls for wind. 2. Airport markings (including hold short lines), signs, and lights. 3. Aircraft lighting. 4. Towered and non-towered airport operations. 5. Visual indicators for wind. 6. Airport information resources (AFD, airport diagram). 7. Good cockpit discipline during taxi, including maintaining a sterile cockpit, proper speed, separation between other aircraft and vehicles, communication procedures. 8. Procedures for appropriate cockpit activities during taxiing including taxi route planning, briefing the location of HOT SPOTS, communicating and coordinating with ATC. 9. Rules for entering or crossing runways. 10. Procedures unique to night operations. 11. Hazards of low visibility operations.
Skills	The applicant demonstrates the ability to: 1. Perform a brake check immediately after the airplane begins moving. 2. Position the flight controls properly for the existing wind conditions. 3. Control direction and speed without excessive use of brakes. 4. Exhibit procedures for steering, maneuvering, maintaining taxiway, runway position, and situational awareness to avoid runway incursions. 5. Exhibit proper positioning of the aircraft relative to hold lines. 6. Exhibit procedures to ensure clearances/instructions are received, recorded, and read back correctly. 7. Exhibit situational awareness and taxi procedures in the event the aircraft is on a taxiway that is between parallel runways. 8. Use a taxi chart during taxi. 9. Comply with airport/taxiway markings, signals, ATC clearances and instructions. 10. Utilize procedures for eliminating pilot distractions to avoid other aircraft or vehicles and hazards.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Distractions during aircraft taxi. 2. Proper workload management. 3. Confirmation or expectation bias. 4. Recording taxi instructions/clearances 5. Resource management.

Task	***E. Before Takeoff Check***
Reference	FAA-H-8083-3, POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with the before takeoff check, including the reasons for checking each item, detecting malfunctions, and ensuring the airplane is in safe operating condition as recommended by the manufacturer.
Knowledge	The applicant demonstrates understanding of: 1. Purpose of the runup. 2. Aircraft performance given expected conditions. 3. Purpose of a checklist. 4. Wake turbulence avoidance.
Skills	The applicant demonstrates the ability to: 1. Position the airplane properly considering other aircraft, and wind. 2. Divide attention inside and outside the cockpit. 3. Ensure that powerplant and instrumentation are suitable for runup and takeoff. 4. Accomplish the before takeoff checklist and departure briefing. 5. Review takeoff performance, such as airspeeds, takeoff distances, departure, and emergency procedures.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Division of attention and scanning. 2. Different runway than expected. 3. Positive exchange of flight controls. 4. Wake turbulence avoidance. 5. Automation management.

III. Airport Operations

Task	*A. Radio Communications and ATC Light Signals*
Reference	14 CFR part 91; FAA-H-8083-25; AIM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with normal and emergency radio communications and ATC light signals to conduct radio communications safely while operating the aircraft.
Knowledge	The applicant demonstrates understanding of: 1. How to obtain frequency. 2. Standard communication procedures and ATC standard phraseology. 3. ATC light signal recognition. 4. Communication procedures. 5. Transponders. 6. Emergency Locator Transmitter. 7. Radar assistance. 8. Lost communication procedures. 9. Use of automated weather and airport information.
Skills	The applicant demonstrates the ability to: 1. Select appropriate frequencies. 2. Transmit using standard phraseology and procedures. 3. Acknowledge radio communications and comply with instructions.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Overcoming human factors associated with communication 2. Overcoming human factors associated with declaring an emergency 3. Equipment issues that could cause loss of communication. 4. Automation management.

Task	***B. Traffic Patterns***
Reference	FAA-H-8083-3, FAA-H-8083-25; AC 90-66; AIM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with safe operations in and around the airport traffic patterns.
Knowledge	The applicant demonstrates understanding of: 1. Towered and non-towered airport operations and runway selection. 2. Airport markings, lighting, wind indicators. 3. Collision avoidance. 4. Right-of-way rules. 5. Wake turbulence recognition and resolution. 6. Wind shear avoidance. 7. Runway incursion avoidance. 8. Use of automated weather and airport information. 9. Use of radio for proper communications. 10. Parachuting operations.
Skills	The applicant demonstrates the ability to: 1. Properly identify and interpret airport runways, taxiways, markings, and lighting. 2. Comply with proper traffic pattern procedures. 3. Maintain proper spacing from other aircraft. 4. Correct for wind drift to maintain the proper ground track. 5. Maintain orientation with the runway/landing area in use. 6. Maintain traffic pattern altitude, ±100 feet, and the appropriate airspeed, ±10 knots. 7. Maintain an awareness of the position of other aircraft in the pattern.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Collision avoidance. 2. Scanning. 3. Wake turbulence. 4. Lack of situational awareness. 5. Aircraft separation.

IV. Takeoffs, Landings, and Go-Arounds

Task	***A. Normal Takeoff and Climb***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a normal takeoff, climb operations, and rejected takeoff procedures. NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.
Knowledge	The applicant demonstrates understanding of: 1. Takeoff distance. 2. Takeoff power. 3. Wind conditions and effects. 4. Minimum safe altitude. 5. Density altitude. 6. Headwind, tailwind, crosswind component. 7. Application of V_X or V_Y. 8. Emergency procedures during takeoff and climb.
Skills	The applicant demonstrates the ability to: 1. Verify ATC clearance and no aircraft is on final before entering the runway. 2. Ensure the aircraft is on the correct takeoff runway. 3. Ascertain wind direction with or without visible wind direction indicators. 4. Calculate if crosswind component is above his or her ability or that of the aircraft's capability. 5. Position the flight controls for the existing wind conditions. 6. Clear the area; taxi into the takeoff position and align the airplane on the runway center. 7. Confirm takeoff power, and proper engine instrument indications prior to rotation. 8. Rotate and lift off at the recommended airspeed and accelerates to V_Y. 9. Establish a pitch attitude that will maintain V_Y +10/-5 knots. 10. Retract the landing gear and flaps in accordance with manufacturer guidance. 11. Maintain takeoff power and V_Y +10/-5 knots to a safe maneuvering altitude. 12. Maintain directional control and proper wind-drift correction throughout the takeoff and climb. 13. Comply with noise abatement and published departure procedures. 14. Complete the appropriate checklist. 15. Use proper emergency procedures during takeoff and climb, according to the manufacturer.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of runway based on wind, pilot capability, and aircraft limitations 2. Determining if crosswind component exceeds pilot ability or aircraft capability. 3. Windshear. 4. Tailwinds. 5. Wake turbulence. 6. Go/no go decision making. 7. Task management. 8. Low altitude maneuvering. 9. Wire strikes. 10. Minimum safe altitude for climb. 11. Situational awareness of obstacles on departure path. 12. Recognition of need for rejected takeoff. 13. Handling engine failure during takeoff and climb.

Task	***B. Normal Approach and Landing***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a normal approach and landing with emphasis on proper use and coordination of flight controls. NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.
Knowledge	The applicant demonstrates understanding of: 1. Landing distance. 2. Stabilized approach. 3. Energy management. 4. Wind conditions and effects. 5. Density altitude. 6. Headwind, tailwind, crosswind component. 7. Emergency procedures during approach and landing. 8. Land and hold short operations.
Skills	The applicant demonstrates the ability to: 1. Consider the wind conditions, landing surface, obstructions, and selects a suitable touchdown point. 2. Establish the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required. 3. Maintain a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 V_{SO}, +10/-5 knots, with wind gust factor applied. 4. Make smooth, timely, and correct control application during the round out and touchdown. 5. Touch down smoothly at the manufacturer's recommended speed. 6. Touch down within the available runway, within 400 feet beyond a specified point with no drift, and with the airplane's longitudinal axis aligned with and over the runway centerline. 7. Maintain crosswind correction and directional control throughout the approach and landing sequence. 8. Execute a timely go around decision when the approach cannot be made within the tolerances specified above. 9. Utilize after landing runway incursion avoidance procedures. 10. Complete the appropriate checklist.

Task continued on next page.

Task	*B. Normal Approach and Landing*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of runway based on wind and pilot capability and aircraft limitations. 2. Determining if crosswind component exceeds pilot ability or aircraft capability. 3. Windshear. 4. Tailwinds. 5. Wake turbulence. 6. Task management. 7. Low altitude maneuvering. 8. Wire strikes. 9. Collision Avoidance. 10. Right-of-way. 11. Situational awareness of obstacles on approach path. 12. Recognition of need for go-around/rejected landing. 13. Stall/spin awareness. 14. Land and hold short operations.

Task	*C. Soft-Field Takeoff and Climb*
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a soft-field takeoff, climb operations, and rejected takeoff procedures.
Knowledge	The applicant demonstrates understanding of: 1. Importance of weight transfer from wheels to wings. 2. Awareness of additional left turning tendencies. 3. Effects of aircraft configuration. 4. Effects of runway surface. 5. Takeoff distance. 6. Takeoff power. 7. Wind conditions and effects. 8. Minimum safe altitude. 9. Density altitude. 10. Headwind, tailwind, crosswind component. 11. Application of V_X or V_Y. 12. Emergency procedures during takeoff and climb.
Skills	The applicant demonstrates the ability to: 1. Verify ATC clearance and no aircraft is on final before entering the runway. 2. Ensure the aircraft is on the correct takeoff runway. 3. Ascertain wind direction with or without visible wind direction indicators. 4. Calculate the crosswind component and determine if it is above his or her ability or that of the aircraft's capability. 5. Position the flight controls for the existing wind conditions. 6. Clear the area; taxi into the takeoff position and align the airplane on the runway center line without stopping while advancing the throttle smoothly to takeoff power. 7. Confirm takeoff power, and proper engine instrument indications prior to rotation. 8. Establish and maintain a pitch attitude that will transfer the weight of the airplane from the wheels to the wings as rapidly as possible. 9. Rotate and lift off at the lowest possible airspeed and remains in ground effect while accelerating to V_X or V_Y, as appropriate. 10. Establish a pitch attitude for V_X or V_Y, as appropriate, and maintains selected airspeed +10/-5 knots during the climb. 11. Retract the landing gear and flaps after clear of any obstacles in accordance with manufacturer guidance. 12. Maintain takeoff power and V_X or V_Y +10/-5 knots to a safe maneuvering altitude 13. Maintain directional control and proper wind-drift correction throughout the takeoff and climb. 14. Comply with noise abatement and published departure procedures. 15. Complete the appropriate checklist. 16. Use proper emergency procedures during takeoff and climb, according to the manufacturer.

Task continued on next page.

Task	*C. Soft-Field Takeoff and Climb*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of runway based on wind, pilot capability, and aircraft limitations. 2. Determining if crosswind component exceeds pilot ability or aircraft capability. 3. Other than hard surfaced runway. 4. Windshear. 5. Tailwinds. 6. Wake turbulence. 7. Go/no go decision making. 8. Task management. 9. Low altitude maneuvering. 10. Wire strikes. 11. Minimum safe altitude for climb. 12. Situational awareness of obstacles on departure path. 13. Recognition of need for rejected takeoff. 14. Strategies for handling engine failure during takeoff and climb.

Task	***D. Soft-Field Approach and Landing***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a soft-field approach and landing with emphasis on proper use and coordination of flight controls.
Knowledge	The applicant demonstrates understanding of: 1. Landing distance. 2. Hazards of other than hard surfaced runway. 3. Stabilized approach. 4. Energy management. 5. Wind conditions and effects. 6. Density altitude. 7. Headwind, tailwind, crosswind component. 8. Emergency procedures during approach and landing.
Skills	The applicant demonstrates the ability to: 1. Consider the wind conditions, landing surface, obstructions, and selects a suitable touchdown point. 2. Establish the recommended approach and landing configuration and airspeed, and adjusts pitch attitude and power as required. 3. Maintain a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 V_{SO}, +10/-5 knots, with wind gust factor applied. 4. Make smooth, timely, and correct control application during the round out and touchdown and keep the nose wheel off the surface until loss of elevator effectiveness. 5. Touch down softly with no drift, and with the airplane's longitudinal axis aligned with and over the runway centerline.. 6. Maintain crosswind correction and directional control throughout the approach and landing sequence. 7. Execute a timely go-around decision when the approach cannot be made within the tolerances specified above. 8. Maintain proper position of the flight controls and sufficient speed to taxi on the soft surface. 9. Utilize after landing runway incursion avoidance procedures. 10. Complete the appropriate checklist.

Task continued on next page.

Task	*D. Soft-Field Approach and Landing*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of runway based on wind and pilot capability and aircraft limitations. 2. Determining if crosswind component exceeds pilot ability or aircraft capability. 3. Other than hard-surfaced runway. 4. Windshear avoidance. 5. Tailwinds. 6. Wake turbulence. 7. Task management. 8. Low altitude maneuvering. 9. Wire strikes. 10. Collision avoidance. 11. Right-of-way. 12. Situational awareness of obstacles on approach path. 13. Recognition of need for go-around/rejected landing. 14. Stall/spin awareness. 15. How to accomplish soft field landing without the use of power in power failure situation.

Task	***E. Short-Field Takeoff and Maximum Performance Climb***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a short-field takeoff, maximum performance climb operations, and rejected takeoff procedures.
Knowledge	The applicant demonstrates understanding of: 1. Effects of aircraft configuration. 2. Effects of runway surface. 3. Takeoff distance. 4. Takeoff power. 5. Obstruction clearance. 6. Wind conditions and effects. 7. Minimum safe altitude. 8. Density altitude. 9. Headwind, tailwind, crosswind component. 10. Application of V_X or V_Y. 11. Emergency procedures during takeoff and climb.
Skills	The applicant demonstrates the ability to: 1. Verify ATC clearance and no aircraft on final before entering the runway. 2. Ensure the aircraft is on the correct takeoff runway. 3. Ascertain wind direction with or without visible wind direction indicators. 4. Calculate if crosswind component and determine if it is above his or her ability or that of the aircraft's capability. 5. Position the flight controls for the existing wind conditions. 6. Clear the area; taxi into takeoff position utilizing maximum available takeoff area and align the airplane on the runway center line. 7. Apply brakes (if appropriate), while advancing the throttle smoothly to takeoff power. 8. Configure aircraft power settings to achieve maximum performance. 9. Confirm takeoff power prior to brake release and proper engine instrument indications prior to rotation. 10. Rotate and lift off at the recommended airspeed, and accelerate to the recommended obstacle clearance airspeed or V_X. 11. Establish a pitch attitude that will maintain the recommended obstacle clearance airspeed, or V_X, +10/-5 knots, until the obstacle is cleared, or until the airplane is 50 feet above the surface. 12. After clearing the obstacle, establish the pitch attitude for V_Y, accelerate to V_Y, and maintain V_Y, +10/-5 knots, during the climb. 13. Retract the landing gear and flaps after clear of any obstacles in accordance with manufacturer guidance. 14. Maintain takeoff power and V_X or V_Y +10/-5 knots to a safe maneuvering altitude. 15. Maintain directional control and proper wind-drift correction throughout the takeoff and climb. 16. Comply with noise abatement and published departure procedures. 17. Complete the appropriate checklist. 18. Demonstrate proper emergency procedures during takeoff and climb, according to the manufacturer.

Task continued on next page.

Task	*E. Short-Field Takeoff and Maximum Performance Climb*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of runway based on wind and pilot capability and aircraft limitations. 2. Determining if crosswind component exceeds pilot ability or aircraft capability. 3. Other than hard-surfaced runway. 4. Obstruction clearance. 5. Obstruction clearance climb attitude. 6. Windshear. 7. Tailwinds. 8. Wake turbulence. 9. Go/no go decision making. 10. Task management. 11. Low altitude maneuvering. 12. Wire strikes. 13. Minimum safe altitude for climb. 14. Situational awareness of obstacles on departure path. 15. Recognition of need for rejected takeoff. 16. Strategies for handling engine failure during takeoff and climb.

Task	***F. Short-Field Approach and Landing***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a short-field approach and landing with emphasis on proper use and coordination of flight controls.
Knowledge	The applicant demonstrates understanding of: 1. Landing distance. 2. Hazards of other than hard-surfaced runways. 3. Obstruction clearance. 4. Stabilized approach. 5. Energy management. 6. Wind conditions and effects. 7. Density altitude. 8. Headwind, tailwind, crosswind component. 9. Emergency procedures during approach and landing. 10. Land and hold short operations.
Skills	The applicant demonstrates the ability to: 1. Consider the wind conditions, landing surface, obstructions, and select a suitable touchdown point. 2. Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required. 3. Maintain a stabilized approach and recommended airspeed, or in its absence, not more than 1.3 V_{SO}, +10/-5 knots, with wind gust factor applied. 4. Make smooth, timely, and correct control application during the round out and touchdown. 5. Touch down smoothly at manufacturer's recommended airspeed. 6. Touch down within the available runway, at or within 200 feet beyond a specified point, with no side drift, minimum float, and with the airplane's longitudinal axis aligned with and over the runway center line. 7. Maintain crosswind correction and directional control throughout the approach and landing sequence. 8. Execute a timely go-around decision when the approach cannot be made within the tolerances specified above. 9. Apply brakes as necessary, to stop in the shortest distance consistent with safety. 10. Configure aircraft power settings to achieve maximum performance. 11. Utilize after landing runway incursion avoidance procedures. 12. Complete the appropriate checklist.

Task continued on next page.

Task	*F. Short-Field Approach and Landing*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of runway based on wind and pilot capability and aircraft limitations. 2. Determining if crosswind component exceeds pilot ability or aircraft capability. 3. Other than hard surfaced runway. 4. Obstruction clearance. 5. Windshear. 6. Hazards of tailwinds. 7. Wake turbulence. 8. Task management. 9. Low altitude maneuvering. 10. Wire strikes. 11. Collision Avoidance. 12. Right-of-way. 13. Situational awareness of obstacles on approach path. 14. Recognition of need for go-around/rejected landing. 15. Stall/spin awareness. 16. Land and Hold Short Operations.

Task	***G. Forward Slip to a Landing***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a forward slip to a landing.
Knowledge	The applicant demonstrates understanding of: 1. When and why forward slips are used and differences between side slips. 2. How forward slips are executed. 3. Landing distance. 4. Stabilized approach. 5. Energy management. 6. Effects of forward slips changing indicated airspeed vs. true airspeed. 7. Wind conditions and effects. 8. Density altitude. 9. Headwind, tailwind, crosswind component. 10. Emergency procedures during approach and landing. 11. Land and hold short operations.
Skills	The applicant demonstrates the ability to: 1. Select runway based on wind and pilot capability and aircraft limitations. 2. Determine if crosswind component is above his or her ability or that of the aircraft's capability. 3. Select touchdown point. 4. Establish the slipping attitude at the point from which a landing can be made using the recommended approach and landing configuration and airspeed; adjust pitch attitude as required. 5. Maintain a ground track aligned with the runway centerline and an airspeed, which results in minimum float during the round out. 6. Make smooth, timely, and correct control application during the recovery from the slip, the round out, and the touchdown. 7. Touch down within 400 feet beyond a specified point with no drift, and with the airplane's longitudinal axis aligned with and over the runway centerline. 8. Maintain crosswind correction and directional control throughout the approach and landing sequence. 9. Complete the appropriate checklist.

Task continued on next page.

Task	***G. Forward Slip to a Landing***
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Performing a go-around/rejected landing. 2. Importance of landing in direction of momentum, with wheels pointed forward on touchdown. 3. Correlating any cross wind effects with direction of forward slip and transition to side slip for landing. 4. Stall/spin awareness. 5. Windshear. 6. Land and hold short operations. 7. Tailwinds. 8. Wake turbulence. 9. Task management. 10. Low altitude maneuvering. 11. Wire strikes. 12. Collision avoidance. 13. Right-of-way. 14. Situational awareness of obstacles on approach path. 15. Risks associated with forward slip operations, including fuel flowage, tail stalls with flaps, and airspeed control.

Task	***H. Go-Around/Rejected Landing***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with a go around/rejected landing with emphasis on factors that contribute to landing conditions that may require a go around.
Knowledge	The applicant demonstrates understanding of: 1. Landing distance. 2. Stabilized approach. 3. Energy management. 4. Wind conditions and effects. 5. Headwind, tailwind, crosswind component. 6. Emergency procedures during approach and landing. 7. Communication procedures.
Skills	The applicant demonstrates the ability to: 1. Make a timely decision to discontinue the approach to landing. 2. Apply takeoff power immediately and transition to climb pitch attitude for V_X or V_Y as appropriate +10/-5 knots and/or appropriate pitch attitude. 3. Configure aircraft power settings to achieve maximum performance. 4. Retract the flaps and adjust pitch trim, as appropriate. 5. Retract the landing gear in accordance with manufacturer guidance. 6. Maneuver to the side of the runway/landing area to clear and avoid conflicting traffic. 7. Maintain takeoff power V_Y +10/-5 to a safe maneuvering altitude. 8. Maintain directional control and proper wind-drift correction throughout the climb. 9. Complete the appropriate checklist.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Timeliness for making and executing decision. 2. Task management. 3. Low altitude maneuvering. 4. Slow flight. 5. Wire strikes. 6. Collision avoidance. 7. Right-of-way. 8. Situational awareness of obstacles on approach path. 9. Spin awareness. 10. Elevator trim stalls.

V. Performance Maneuvers

Task	***A. Steep Turns***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with steep turns.
Knowledge	The applicant demonstrates understanding of: 1. Coordinated flight. 2. Attitude control at various airspeeds. 3. Maneuvering speed, including changes in weight. 4. Controlling rate and radius of turn. 5. Accelerated stalls. 6. Overbanking tendencies. 7. Use of trim. 8. Aerodynamics associated with steep turns.
Skills	The applicant demonstrates the ability to: 1. Establish the manufacturer's recommended airspeed or if one is not stated, a safe airspeed not to exceed V_A. 2. Roll into a coordinated 360° turn; maintain a 45° bank. 3. Perform the task in the opposite direction, as specified by the evaluator. 4. Maintain the entry altitude, ±100 feet, airspeed, ±10 knots, bank, ±5°; and roll out on the entry heading, ±10°.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Dividing attention between airplane control and orientation. 2. Task management. 3. Energy management. 4. Stall/spin awareness. 5. Situational awareness. 6. Rate and radius of turn with confined area operations.

Task	***B. Ground Reference Maneuvers***
Reference	FAA-H-8083-3; 14 CFR part 61
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with ground reference maneuvering which may include a rectangular course, s-turns, or turns around a point.
Knowledge	The applicant demonstrates understanding of: 1. Effects of wind on ground track and relation to a ground reference point. 2. Effect of bank angle and airspeed on rate and radius of turn. 3. Entry/exit requirements of maneuver. 4. Relation of maneuver to airport traffic pattern. 5. Emergency landing considerations during conduct of the maneuver, including entry and exit. 6. Use of maneuver to increase separation from other aircraft.
Skills	The applicant demonstrates the ability to: 1. Ensure the area is clear of other aircraft and obstructions. 2. Select a suitable reference area or ground reference line. 3. Identify a suitable emergency landing area. 4. Plan the maneuver so as to enter a left or right pattern, 600 to 1,000 feet AGL at an appropriate distance from the selected reference area, 45° to the downwind leg (if rectangular course), perpendicular to the selected reference line (if s-turns), or at an appropriate distance from the reference point (if turns around a point). 5. Apply adequate wind-drift correction during straight-and turning flight to maintain a constant ground track if around a rectangular reference area or to track a constant radius turn on each side of the selected reference line. 6. If performing a pattern such as s-turns, reverse the turn directly over the selected reference line; if performing turns around a point, complete turns in either direction around the selected reference point. 7. Divide attention between airplane control and the ground track while maintaining coordinated flight. 8. Maintain altitude, ±100 feet; maintains airspeed, ±10 knots.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Collision avoidance. 2. CFIT avoidance. 3. Task management. 4. Wire strike avoidance. 5. Airmanship as exhibited by positive aircraft control. 6. Planning for a suitable landing area in the case of an engine failure.

VI. Navigation

Task	*A. Pilotage and Dead Reckoning*
Reference	FAA-H-8083-25; 14 CFR part 61; Navigation Chart
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with pilotage and dead reckoning.
Knowledge	The applicant demonstrates understanding of: 1. Navigation process selection. 2. Determining heading, speed, course. 3. Estimating time, rate, distance. 4. True airspeed and density altitude. 5. Wind correction angle. 6. Checkpoint selection. 7. Planned vs. actual flight plan calculations and required corrections. 8. Topography. 9. Plotting a course. 10. Magnetic compass errors. 11. Route selection. 12. Altitude selection. 13. Power setting selection.
Skills	The applicant demonstrates the ability to: 1. Prepare a document or electronic equivalent to be used in flight for comparisons with planned fuel usages and times over waypoints while dead reckoning. 2. Follow the preplanned course by reference to landmarks. 3. Identify landmarks by relating surface features to chart symbols. 4. Navigate by means of precomputed headings, groundspeeds, and elapsed time. 5. Demonstrate use of magnetic compass in navigation, to include turns to new headings. 6. Correct for and record the differences between preflight groundspeed, fuel consumption, and heading calculations and those determined en route. 7. Verify the airplane's position within 3 nautical miles of the flight-planned route. 8. Arrive at the en route checkpoints within 5 minutes of the initial or revised ETA and provide a destination estimate. 9. Maintain the selected altitude, ±200 feet and headings, ±15°.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. CFIT risk avoidance plan. 2. Avoiding/recovering from misidentification of landmarks. 3. Bracketing strategy. 4. Selecting an alternate. 5. Situational awareness. 6. Task management. 7. Actual vs. planned fuel consumption. 8 Exit strategies. 9. Preflight pilot/operation risk assessment and planning.

Task	***B. Navigation Systems and Radar Services***
Reference	FAA-H-8083-3, FAA-H-8083-6, FAA-H-8083-25; Navigation Equipment Operation Manuals; AIM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with navigation systems and radar services.
Knowledge	The applicant demonstrates understanding of: 1. VOR (orientation, course determination, equipment, tests and regulations). 2. GPS (equipment, regulations, databases authorized use, RAIM). 3. Radar assistance to VFR aircraft (operations, equipment, available services, traffic advisories). 4. Transponder (Mode A, C, and S).
Skills	The applicant demonstrates the ability to: 1. Demonstrate the ability to use installed electronic navigation system. 2. Locate the airplane's position using the navigation system. 3. Intercept and track a given course, radial, or bearing, as appropriate. 4. Recognize and describe the indication of station passage, if appropriate. 5. Recognize signal loss and take appropriate action. 6. Use proper communication procedures when utilizing radar services. 7. Maintain the appropriate altitude, ±200 feet and headings ±15°.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Automation management. 2. Task management. 3. Situational awareness. 4. Limitations of the navigation system in use. 5. Planning to avoid automation distractions.

Task	***C. Diversion***
Reference	FAA-H-8083-25; AIM; Navigation Chart
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with diversion.
Knowledge	The applicant demonstrates understanding of: 1. Selecting divert destination. 2. Deviating from ATC instructions and/or the flight plan.
Skills	The applicant demonstrates the ability to: 1. Select an appropriate diversion airport and route. 2. Efficiently divert to the new airport without taking the time to make precise measurements first. 3. Make an accurate estimate of heading, groundspeed, arrival time, and fuel consumption to the divert airport. 4. Maintain the appropriate altitude, ±200 feet and heading, ±15°. 5. Make safe entry into the traffic pattern at diversion airport. 6. Accurately communicate intentions with ATC and/or local traffic
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Selection of appropriate airport. 2. Timely decision to divert. 3. Improving situation by diversion. 4. Maintaining proper procedures during diversion. 5. Collision avoidance. 6. CFIT. 7. Task management. 8. Situational awareness. 9. Resource management (automation, ATC, cockpit planning aids).

Task	***D. Lost Procedures***
Reference	FAA-H-8083-25; AIM; Navigation Chart
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with lost procedures and taking appropriate steps to achieve a satisfactory outcome if lost.
Knowledge	The applicant demonstrates understanding of: 1. Understands value of recording time at waypoints. 2. Assistance available if lost (radar services, communication procedures). 3. Responsibility and authority of PIC. 4. Deviation from ATC instructions. 5. Declaring an emergency.
Skills	The applicant demonstrates the ability to: 1. Select an appropriate course of action. 2. Estimate current position. 3. Maintain an appropriate heading and climbs, if necessary. 4. Identify prominent landmarks. 5. Use navigation systems/facilities and/or contacts an ATC facility for assistance, as appropriate.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Following a procedure of recording times over waypoints. 2. Task management. 3. Situational awareness. 4. CFIT. 5. Collision avoidance. 6. Recognition of a deteriorating situation and seeking assistance. 7. Knowing when to declare an emergency.

VII. Slow Flight and Stalls

Task	***A. Maneuvering During Slow Flight***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with maneuvering during slow flight.
Knowledge	The applicant demonstrates understanding of: 1. Maneuver relative to a real-life portion of a flight. 2. Relationship between AOA, airspeed, load factor, aircraft configuration, aircraft weight, and aircraft attitude. 3. Importance of reliance on aircraft performance indications (aircraft buffet) instead of artificial warning systems (stall horn). 4. The difference between AOA and aircraft attitude during all flight conditions and how it relates to aircraft performance. 5. How environmental elements affect aircraft performance. 6. Importance of the 1,500 foot AGL minimum altitude.
Skills	The applicant demonstrates the ability to: 1. Select an entry altitude that will allow the task to be completed no lower than 1,500 feet AGL. 2. Establish and maintain an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in an immediate stall. 3. Accomplish coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the evaluator. 4. Divide attention between airplane control and orientation. 5. Maintain the specified altitude, ±100 feet; specified heading, ±10°; airspeed, +10/-0 knots; and specified angle of bank, ±10°.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Relationship between angle of attack, airspeed, load factor, aircraft configuration, aircraft weight, and aircraft attitude. 2. Reliance on aircraft performance indications, such as aircraft buffet instead of artificial warning systems such as a stall horn. 3. Understanding how environmental elements affect aircraft performance.

Task	***B. Power-Off Stalls***
Reference	FAA-H-8083-3; AC 61-67; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with power-off stalls.
Knowledge	The applicant demonstrates understanding of: 1. Importance of the 1,500 foot AGL minimum altitude. 2. Relating the maneuver to a real-life portion of a flight. 3. Components of a stabilized descent. 4. Approach to stall indications. 5. Full stall indications. 6. Determining which aircraft inputs are required to meet heading or bank angle requirements. 7. Determining the most efficient stall recovery procedure so that a minimum loss of altitude occurs. 8. Importance of establishing the correct aircraft configuration during the recovery process and the consequences of failing to do so. 9. Aerodynamics associated with stalls and spins in various aircraft configurations and attitudes. 10. Circumstances that can lead to an inadvertent stall or spin.
Skills	The applicant demonstrates the ability to: 1. Select an entry altitude that will allow the task to be completed no lower than 1,500 feet AGL. 2. Establish a stabilized descent in the approach or landing configuration, as specified by the evaluator. 3. Transition smoothly from the approach or landing attitude to a pitch attitude that will induce a stall. 4. Maintain a specified heading, ±10°, if in straight flight; maintain a specified angle of bank not to exceed 20°, ±10°; if in turning flight, while inducing the stall. 5. Recognize and recover promptly after a fully developed stall occurs. 6. Retract the flaps to the recommended setting; retract the landing gear, if retractable, after a positive rate of climb is established. 7. Execute stall recovery in accordance with procedures set forth in the POH.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Dynamic aerodynamic relationship between angle of attack, airspeed, load factor, aircraft configuration, aircraft weight, and aircraft attitude. 2. Reliance on aircraft performance indications such as aircraft buffet instead of artificial warning systems such as a stall horn. 3. Understanding how environmental elements affect aircraft performance. 4. Understanding the required actions for aircraft maximum performance and the consequences of failing to do so.

Task	***C. Power-On Stalls***
Reference	FAA-H-8083-3; AC 61-67; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with power-on stalls. NOTE: In some high performance airplanes, the power setting may have to be reduced below the practical test standards guideline power setting to prevent excessively high pitch attitudes (greater than 30° nose up).
Knowledge	The applicant demonstrates understanding of: 1. Importance of the 1,500 foot AGL minimum altitude. 2. Relating the maneuver to a real-life portion of a flight. 3. Rationale for power setting variances. 4. Approach to stall indications. 5. Full stall indications. 6. Determining which aircraft inputs are required to meet heading or bank angle requirements. 7. Determining the most efficient stall recovery procedure so that a minimum loss of altitude occurs. 8. Importance of establishing the correct aircraft configuration during the recovery process and the consequences of failing to do so. 9. Aerodynamics associated with stalls and spins in various aircraft configurations and attitudes. 10. Circumstances that can lead to an inadvertent stall or spin.
Skills	The applicant demonstrates the ability to: 1. Select an entry altitude that will allow the task to be completed no lower than 1,500 feet AGL. 2. Establish the takeoff, departure, or cruise configuration as specified by the evaluator. 3. Set power (as assigned by evaluator)to no less than 65 percent available power. 4. Transition smoothly from the takeoff or departure attitude to the pitch attitude that will induce a stall. 5. Maintain a specified heading, ±10°, if in straight flight; maintain a specified angle of bank not to exceed 20°, ±10°, if in turning flight, while inducing the stall. 6. Recognize and recover promptly after a fully developed stall occurs. 7. Retract the flaps to the recommended setting; retract the landing gear if retractable, after a positive rate of climb is established. 8. Accelerate to V_X or V_Y speed before the final flap retraction; return to the altitude, heading, and airspeed specified by the evaluator.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Dynamic aerodynamic relationship between angle of attack, airspeed, load factor, aircraft configuration, aircraft weight, and aircraft attitude. 2. Reliance on aircraft performance indications such as aircraft buffet instead of artificial warning systems such as stall horn. 3. Understanding how environmental elements affect aircraft performance. 4. Understanding the required actions for aircraft maximum performance and the consequences of failing to do so.

Task	***D. Spin Awareness***
Reference	FAA-H-8083-3; AC 61-67; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with spins, flight situations where unintentional spins may occur and procedures for recovery from unintentional spins.
Knowledge	The applicant demonstrates understanding of: 1. Aerodynamics associated with stalls and spins in various aircraft configurations and attitudes. 2. Circumstances that can lead to an inadvertent stall or spin. 3. Different spin types, causes, recovery strategies.
Skills	The applicant demonstrates the ability to: 1. Assess flight situations where unintentional spins may occur. 2. Explain procedures for recovery from unintentional spins.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Dynamic aerodynamic relationship between angle of attack, airspeed, load factor, aircraft configuration, aircraft weight, and aircraft attitude. 2. Reliance on aircraft performance indications such as aircraft buffet instead of artificial warning systems such as stall horn. 3. Understanding how environmental elements affect aircraft performance. 4. Understanding the required actions for aircraft maximum performance and the consequences of failing to do so. 5. Uncoordinated flight.

VIII. Emergency Operations

Task	*A. Inadvertent IMC*
Reference	FAA-H-8083-3; FAA-H-8083-15
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with inadvertent flight into IMC, including controlling the airplane solely by instrument reference, recognizing and recovering from unusual attitudes and using available communication and navigation facilities and services.
Knowledge	The applicant demonstrates understanding of: 1. Flight instrument function and operation. 2. Flight instrument sensitivity, limitations, and potential errors in unusual attitudes. 3. Flight instrument correlation (pitch instruments/bank instruments). 4. Human factors: vestibular illusions, spatial disorientation, especially involving distractions, and interaction with charts and avionics equipment. 5. Aerodynamic factors related to maintaining straight flight and level flight, constant airspeed climb and descent, establishing and making turns while climbing, descending, and maintaining level flight and returning to level flight. 6. Aerodynamic factors related to unusual pitch and bank attitudes and returning to level flight. 7. Appropriate pitch, bank, and power settings for airplane being flown. 8. Hazards of inappropriate control response to stabilizing an unusual attitude. 9. How to determine the minimum safe altitude for location. 10. Radio communications equipment and procedures. 11. Air traffic control facilities and services. 12. Installed navigation equipment function and displays.
Skills	The applicant demonstrates the ability to: 1. Perform timely cross-check and interpretation of instruments. 2. Perform coordinated, smooth control application to correct for altitude, heading, airspeed, and bank deviations during straight-and-level, climb, descent, and return to level off. 3. Perform coordinated, smooth control application to establish a standard-rate turn and to correct for altitude and bank deviations and rollout on specified heading. 4. Perform timely recognition of the nature of the unusual attitude and correct, coordinated, and smooth control application to resolve unusual pitch and bank attitudes while staying within the airplane's limitations and flight parameters. 5. Perform appropriate trimming to relieve control pressures. 6. Maintain altitude ±200 feet, heading ±20°, and airspeed ±10 knots. 7. Maintain controlled flight while selecting proper communications frequencies and setting up navigation equipment to select desired course. 8. Control the airplane to follow verbal ATC instructions. 9. Control the airplane to follow desired navigation signals.

Task continued on next page.

Task	*A. Inadvertent IMC*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Maintaining proficiency of instrument reference skills. 2. Good cockpit management. 3. Awareness of the direction for nearest VMC. 4. Avoiding IMC when operating VFR. 5. Awareness of the potential risks associated with turning, climbing or descending under emergency instrument conditions. 6. Descending straight and turning level under emergency instrument conditions. 7. Correlating the relationship between recovery techniques and load factor.

Task	***B. Emergency Approach and Landing (Simulated)***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with emergency approach and landing procedures.
Knowledge	The applicant demonstrates understanding of: 1. Glide speed, distance. 2. Landing distance. 3. Hazards of other than hard surfaced runway. 4. Stabilized approach. 5. Energy management. 6. Wind conditions and effects. 7. Density altitude. 8. Headwind, tailwind, crosswind component. 9. Emergency procedures. 10. Communications. 12. Regulations pertaining to emergencies safe altitudes. 14. ATC clearance deviations. 15. Minimum fuel. 16. Selecting a landing location. 17. ELTs. 18. Radar assistance to VFR aircraft. 19. Transponder.
Skills	The applicant demonstrates the ability to: 1. Analyze the situation and select an appropriate course of action. 2. Establish and maintain the recommended best-glide airspeed, ±10 knots. 3. Plan and follow a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions. 4. Prepare for landing, or go-around, as specified by the evaluator. 5. Follow the appropriate checklist.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Accounting for wind. 2. Selecting a suitable landing area. 3. Planning and following a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions. 4. Task management. 5. Low altitude maneuvering. 6. Wire strike avoidance. 7. Collision Avoidance. 8. Right-of-way. 9. Situational awareness of obstacles on approach path. 10. Stall/Spin Awareness. 11. Understanding the difference between best glide speed (L/D) and minimum sink speed and when each one is appropriate.

Task	***C. Systems and Equipment Malfunction***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with system and equipment malfunctions appropriate to the airplane provided for the practical test and analyzing the situation and take appropriate action for simulated emergencies.
Knowledge	The applicant demonstrates understanding of: 1. Elements related to system and equipment malfunctions appropriate to the airplane, including the following— a. partial or complete power loss. b. engine roughness or overheat. c. carburetor or induction icing. d. loss of oil pressure. e. fuel starvation. f. electrical malfunction. g. vacuum/pressure, and associated flight instruments malfunction. h. pitot/static system malfunction. i. landing gear or flap malfunction. j. inoperative trim. k. inadvertent door or window opening. l. structural icing. m. smoke/fire/engine compartment fire. n. any other emergency appropriate to the airplane. 2. Maintenance inspections, records. 3. Preflight inspections. 4. Light signals. 5. Supplemental oxygen. 6. Gliding distance. 7. Load factors. 8. High drag versus low drag.
Skills	The applicant demonstrates the ability to: 1. Analyze the situation and take appropriate action for simulated emergencies appropriate to the airplane provided. 2. Follow the appropriate checklist or procedure. 3. Establish the appropriate airspeed and configuration and maintain positive loads factors during emergency procedure.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Hazardous attitudes. 2. Preflight inspections. 3. Maintenance. 4. Checklist usage. 5. Recognizing situations, such as depressurization, cockpit smoke, and/or fire that require an emergency descent. 6. Orientation, division of attention, and proper planning. 7. Energy management.

Task	***D. Emergency Equipment and Survival Gear***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with emergency equipment and survival gear appropriate to the airplane and environment encountered during flight and identifying appropriate equipment that should be onboard the airplane.
Knowledge	The applicant demonstrates understanding of: 1. Emergency equipment. 2. Climate extremes (hot/cold). 3. Mountainous terrain. 4. Overwater operations. 5. Survival gear. 6. ELT operation, limitations and testing requirements.
Skills	The applicant demonstrates the ability to: 1. Identify appropriate equipment that should be onboard the airplane.
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Hazardous attitudes.

IX. Night Operation

Task	***A. Night Preparation***
Reference	FAA-H-8083-3, FAA-H-8083-25; AIM; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with night operations.
Knowledge	The applicant demonstrates understanding of: 1. Physiological aspects of night flying as it relates to vision. 2. Lighting systems identifying airports, runways, taxiways and obstructions, as well as pilot controlled lighting. 3. Airplane equipment requirements for night operations. 4. Airplane lighting systems – type, interpretation in flight, when to use what. 5. Personal equipment essential for night flight. 6. Night orientation, navigation, and chart reading techniques. 7. Safety precautions and emergencies unique to night flying. 8. Somatogravic illusion and black hole approach illusion. 9. Disorientation experienced in unusual attitudes at night. 10. Visual scanning techniques during night operations. 11. Hazards of inadvertent IMC.
Skills	[Not generally evaluated in flight. If the practical test is conducted at night, all PTS tasks are evaluated in that environment, thus there is no need for explicit task elements to exist here.]
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Collision avoidance. 2. CFIT avoidance. 3. Task management. 4. Wire strike avoidance. 5. Airmanship as exhibited by positive aircraft control. 6. Situational awareness. 8. Environmental considerations at night: i.e. IMC; terrain (roads), etc.

X. Postflight Procedures

Task	***A. After Landing, Parking, and Securing***
Reference	FAA-H-8083-3; POH/AFM
Airman Test Report	Pending
Objective	To determine the applicant exhibits satisfactory knowledge, skills and risk management associated with after landing, parking, and securing procedures.
Knowledge	The applicant demonstrates understanding of: 1. Positioning aircraft controls for wind. 2. Familiarity with airport markings (including hold short lines), signs, and lights. 3. Aircraft lighting. 4. Towered and non-towered airport operations. 5. Visual indicators for wind. 6. Airport information resources (AFD, airport diagram). 7. Good cockpit discipline during taxi. 8. Appropriate taxi speeds. 9. Exhibiting procedures for appropriate cockpit activities during taxiing including taxi route planning, briefing the location of HOT SPOTS, communicating and coordinating with ATC. 10. Procedures unique to night operations. 11. Hazards of low visibility operations. 12. Importance of documenting any in-flight/post-flight discrepancies. 13. NTSB accident/incident reporting.
Skills	The applicant demonstrates the ability to: 1. Maintain directional control after touchdown while decelerating to an appropriate speed. 2. Position the flight controls properly for the existing wind conditions. 3. Control direction and speed without excessive use of brakes. 4. Exhibit procedures for steering, maneuvering, maintaining taxiway, runway position, and situational awareness to avoid runway incursions. 5. Observe runway hold lines and other surface control markings and lighting. 6. Exhibit procedures to ensure clearances/instructions are received and recorded/read back correctly. 7. Exhibit situational awareness/taxi procedures in the event the aircraft is on a taxiway that is between parallel runways. (e.g., Exhibiting procedures for briefing if a landing rollout to a taxiway exit will place the pilot in close proximity to another runway which can result in a runway incursion.) 8. Use a taxi chart during taxi. 9. Comply with airport/taxiway markings, signals, ATC clearances and instructions. 10. Utilize procedures for eliminating pilot distractions. 11. Taxi to avoid other aircraft/vehicles and hazards. 12. Eliminate distractions during aircraft taxi (i.e. cell phone, texting, conversations with passengers). 13. Use proper workload management. 14. Use strategies to avoid confirmation or expectation bias. 15. Park in an appropriate area, considering the safety of nearby persons and property. 16. Follow the appropriate procedure for engine shutdown. 17. Complete the appropriate checklist. 18. Conduct an appropriate post flight inspection and secure the aircraft.

Task continued on next page.

Task	*A. After Landing, Parking, and Securing*
Risk Management	The applicant applies risk identification, assessment, and mitigation principles to: 1. Distractions during aircraft taxi and parking. 2. Proximity of other aircraft/vehicles/people when operating on airport surfaces. 3. Prop safety. 4. Proper workload management. 5. Confirmation or expectation bias. 6. Automation Management.

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SECTION 2: AIRPLANE—SINGLE ENGINE SEA AREAS OF OPERATION

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SECTION 3: AIRPLANE—MULTIENGINE LAND AREAS OF OPERATION

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SECTION 4: AIRPLANE—MULTIENGINE LAND AREAS OF OPERATION

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APPENDIX 1: THE KNOWLEDGE TEST

The knowledge test is an important part of the airman certification process. Applicants must pass the knowledge test before taking the practical test.

Knowledge Test Description

The knowledge test consists of objective, multiple-choice questions. There is a single best response for each test question. Each test question is independent of other questions. A correct response to one does not depend upon, or influence, the correct response to another.

Test Code	Test Name	Number of Questions	Allotted Time	Passing Score
PAR	Private Pilot Airplane	60	2.5	70
PAT	Private Pilot Airplane/Recreational Pilot – Transition	30	1.5	70
PCP	Private Pilot Canadian Conversion	40	2.0	70

Knowledge Test Eligibility Requirements

For information concerning eligibility for Private Pilot certification, please refer to:

- Medical Certificates: Requirement and Duration: 14 CFR 61.23
- Knowledge Test: Prerequisites and Passing Grades: 14 CFR 61.35
- Eligibility: 14 CFR § 61.83; 14 CFR § 61.96; 14 CFR 61.103

Knowledge Test Centers

The FAA authorizes hundreds of knowledge testing center locations. For information on authorized testing centers and to register for the knowledge test, contact one of the providers listed at www.faa.gov.

Test Authorization

In order to take the Private Pilot knowledge test, you must provide one of the following:

- Graduation certificate issued by an FAA certificated pilot school (14 CFR 61.71), or a
- Written statement or logbook endorsement from an authorized instructor certifying that the applicant completed an applicable ground training or home study course and is prepared for the knowledge test (14 CFR 61.35, 61.96(b)(3) or 61.103(d)(2)).

Acceptable forms of authorization for PCP only:

- Confirmation of Verification Letter issued by the Airmen Certification Branch (AFS-760).

Acceptable forms of retest authorization for ALL Private Pilot tests:

- Original failed, passing, or expired Airman Knowledge Test Report, provided the applicant still has the test report in his or her possession.

  Note: If the applicant no longer possesses the original test report, he or she may present an ‘expired test/credit’ letter issued by AFS-760.

- An applicant retesting AFTER FAILURE is required to submit the applicable test report indicating failure, along with an endorsement from an authorized instructor who gave the applicant the required additional training. The endorsement must certify that the applicant is competent to pass the test. The test proctor must retain the original failed test report presented as authorization and attach it to the applicable sign-in/out log.

Knowledge Test Procedures

Before starting the actual test, the testing center will provide an opportunity to practice navigating through the test. This practice or tutorial session may include sample questions to familiarize the applicant with the look and feel of the software. (e.g., selecting an answer, marking a question for later review, monitoring time remaining for the test, and other features of the testing software).

The applicant may use the following aids, reference materials, and test materials, as long as the material does not include actual test questions or answers:

Acceptable Materials	Unacceptable Materials	Notes
Supplement book provided by proctor	Written materials that are handwritten, printed, or electronic	Testing centers may provide calculators and/or deny the use of personal calculators
All models of aviation-oriented calculators or small electronic calculators that perform only arithmetic functions	Electronic calculators incorporating permanent or continuous type memory circuits without erasure capability	Unit Member (proctor) may prohibit the use of your calculator if he or she is unable to determine the calculator's erasure capability
Calculators with simple programmable memories, which allow addition to, subtraction from, or retrieval of one number from the memory; or simple functions, such as square root and percentages	Magnetic cards, magnetic tapes, modules, computer chips, or any other device upon which pre-written programs or information related to the test can be stored and retrieved	Printouts of data must be surrendered at the completion of the test if the calculator incorporates this design feature.
Scales, straightedges, protractors, plotters, navigation computers, blank log sheets, holding pattern entry aids, and electronic or mechanical calculators that are directly related to the test	Dictionaries	Before, and upon completion of the test, while in the presence of the Unit Member, actuate the ON/OFF switch or RESET button, and perform any other function that ensures erasure of any data stored in memory circuits
Manufacturer's permanently inscribed instructions on the front and back of such aids, e.g., formulas, conversions, regulations, signals, weather data, holding pattern diagrams, frequencies, weight and balance formulas, and air traffic control procedures	Any booklet or manual containing instructions related to use of test aids	Unit Member makes the final determination regarding aids, reference materials, and test materials

Testing Procedures for Applicants Requesting Special Accommodations

An applicant with a learning or reading disability may request approval from AFS-630 through the local FSDO or IFO to take an airman knowledge test using one of the three options listed below, in preferential order:

Option 1: Use current testing facilities and procedures whenever possible.

Option 2: Use a self-contained, electronic device which pronounces and displays typed-in words (e.g., the Franklin Speaking Wordmaster®) to facilitate the testing process.

(NOTE: The device should consist of an electronic thesaurus that audibly pronounces typed-in words and presents them on a display screen. The device should also have a built-in headphone jack in order to avoid disturbing others during testing.)

Option 3: Request the proctor's assistance in reading specific words or terms from the test questions and/or supplement book. To prevent compromising the testing process, the proctor must be an individual with no aviation background or expertise. The proctor may provide reading assistance only (i.e., no explanation of words or terms). When an applicant requests this option, the FSDO or IFO inspector must contact the Airman Testing Standards Branch (AFS-630) for assistance in selecting the test site and assisting the proctor. Before approving any option, the FSDO or IFO inspector must advise the applicant of the regulatory certification requirement to be able to read, write, speak, and understand the English language.

Cheating or Other Unauthorized Conduct

Computer testing centers must follow strict security procedures to avoid test compromise in accordance with FAA Order 8080.6 (as amended), Conduct of Airman Knowledge Tests. Testing centers will terminate a test any time the test proctor suspects an occurrence of cheating.

The FAA will conduct an investigation of the incident. If the investigation determines that cheating or unauthorized conduct occurred, any airman certificate or rating the applicant holds may be revoked. In addition, the applicant may be prohibited from applying for or taking any test for a certificate or rating under 14 CFR part 61 for a period of one year.

Airman Knowledge Test Report

Immediately upon completion of the knowledge test, the applicant receives a printed Airman Knowledge Test Report documenting the score with the testing center's raised, embossed seal. The applicant must retain the original Airman Knowledge Test Report and present it to the evaluator conducting the practical test.

An Airman Knowledge Test Report expires 24-calendar months from the month the applicant completes the knowledge test. If the Airman Knowledge Test Report expires before completion of the practical test, the applicant must retake the knowledge test.

To obtain a duplicate Airman Knowledge Test Report due to loss or destruction of the original, the applicant can send a signed request accompanied by a check or money order for $1.00, payable to the FAA to:

Federal Aviation Administration
Airmen Certification Branch, AFS-760
P.O. Box 25082
Oklahoma City, OK 73125

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APPENDIX 2: THE PRACTICAL TEST

The evaluator must conduct the practical test in accordance with this ACS. The evaluator must assess the applicant on all tasks included in each Area of Operation of the ACS unless otherwise noted.

Note: The applicant must pass the knowledge test before taking the practical test, and the applicant must pass the oral portion of the practical test before beginning the flight portion.

For an applicant who holds at least a private pilot certificate and seeks an additional airplane category and/or class rating at the private pilot level, the examiner shall evaluate that applicant in the Areas of Operation and Tasks listed in the Additional Rating Task Table. Please note, however, that the evaluator has the discretion to evaluate the applicant's competence in the remaining Areas of Operation and Tasks.

If the applicant holds two or more category or class ratings at least at the private level, and the ratings table indicates differing required Tasks, the "least restrictive" entry applies. For example, if "ALL" and "NONE" are indicated for one Area of Operation, the "NONE" entry applies. If "B" and "B, C" are indicated, the "B" entry applies.

Conduct of the Practical Test

The evaluator must develop a written Plan of Action to conduct the test, which includes all required Areas of Operation and Tasks. The Plan of Action will include a scenario that evaluates as many of the required Areas of Operation and Tasks as possible. As the scenario unfolds during the test, the examiner will interject problems and emergencies the applicant must manage.

The evaluator has the discretion and flexibility to change the Plan of Action in order to accommodate unexpected situations as they arise. The evaluator will evaluate any selected Task in its entirety. The evaluator may elect to suspend and then resume the scenario in order to assess certain tasks.

If performing aspects of a given maneuver, such as emergency procedures, would jeopardize safety, the evaluator will ask the applicant to simulate that portion of the maneuver.

Use of Checklists

The evaluator will assess the applicant's use of an approved manufacturer's checklist or equivalent during the practical test.

Note: If there is no published manufacturer's checklist, the applicant may use the appropriate FAA handbook or equivalent checklist.

Assessing proper checklist use depends upon the specific Task. In all cases, the evaluator should determine the applicant appropriately divides attention and uses proper visual scanning. In some situations, reading the actual checklist may be impractical or unsafe. In such cases, the evaluator should assess the applicant's performance of published or recommended immediate action "memory" items along with his or her review of the appropriate checklist once conditions permit.

Use of Distractions

Research and accident analysis indicate that pilot distraction during critical phases of flight is a factor in many accidents. The evaluator will cause realistic distractions during the flight portion of the practical test in order to evaluate the applicant's ability to use and maintain proper control technique while dividing attention both inside and/or outside the cockpit.

Positive Exchange of Flight Controls

There must always be a clear understanding of who has control of the aircraft. Prior to flight, the pilots involved should conduct a briefing that includes reviewing the procedures for exchanging flight controls.

The FAA recommends a positive three-step process for exchanging flight controls between pilots:

- When one pilot seeks to have the other pilot take control of the aircraft, he or she will say, "You have the flight controls."
- The second pilot acknowledges immediately by saying, "I have the flight controls."
- The first pilot again says, "You have the flight controls."

Pilots should follow this procedure during any exchange of flight controls, including any occurrence during the practical test. The FAA also recommends that both pilots use a visual check to verify that the exchange has occurred. There must never be any doubt as to who is flying the aircraft.

Stall and Spin Awareness

During flight training and testing, the applicant and the instructor or evaluator must always maintain situational awareness with respect to operations that could lead to an inadvertent stall or spin.

Possible Outcomes of the Practical Test

There are three possible outcomes of the practical test: (1) pass, (2) fail, or (3) discontinuance.

Pass

Satisfactory performance requires the applicant to:

- Perform the Tasks specified in the Areas of Operation for the certificate or rating sought within the approved standards;
- Demonstrate mastery of the aircraft by performing each Task successfully;
- Demonstrate proficiency and competency in accordance with the approved standards;
- Demonstrate sound judgment and exercise aeronautical decision-making/risk management;
- Demonstrate single-pilot competence if the aircraft is type certificated for single-pilot operations.

Satisfactory performance will result in the issuance of a temporary certificate.

Note: The tolerances listed in the ACS represent the performance expected in good flying conditions.

Fail

If, in the judgment of the evaluator, the applicant does not meet the standards for any Task, the applicant fails the Task and associated Area of Operation, the test is unsatisfactory, and the examiner issues a Notice of Disapproval. When the examiner issues a Notice of Disapproval, he or she shall list the Area of Operation in which the applicant did not meet the standard. The Notice of Disapproval must also list the Area(s) of Operation not tested, and the number of practical test failures.

The examiner or the applicant may end the test if the applicant fails a Task. The examiner may continue the test only with the consent of the applicant and examiner, and the applicant is entitled to credit for only those Areas of Operation and the associated Tasks performed satisfactorily. Though not required, the examiner has discretion to reevaluate any Task, including those previously passed, during the retest.

Typical areas of unsatisfactory performance and grounds for disqualification include:

- Any action or lack of action by the applicant that requires corrective intervention by the examiner to maintain safe flight.
- Failure to use proper and effective visual scanning techniques to clear the area before and while performing maneuvers.
- Consistently exceeding tolerances stated in the Objectives.
- Failure to take prompt corrective action when tolerances are exceeded.
- Failure to exercise Risk Management

Discontinuance

When it is necessary to discontinue a practical test for reasons other than unsatisfactory performance (e.g., equipment failure, weather, illness), the evaluator returns all the test paperwork to the applicant. The evaluator must prepare, sign, and issue a Letter of Discontinuance that lists those Areas of Operation the applicant successfully completed and the time remaining to complete the test. The evaluator should advise the applicant to present the Letter of Discontinuance to the evaluator when the practical test resumes in order to receive credit for the items successfully completed. The Letter of Discontinuance becomes part of the applicant's certification file.

Prerequisites for the Test

According to 14 CFR part 61, an applicant for the Private Pilot Practical Test must:

- Be able to read, speak, write, and understand the English language as detailed in AC 60-28;
- Have passed the appropriate private pilot knowledge test since the beginning of the 24th month before the month in which he or she takes the practical test;
- Have satisfactorily accomplished the required training and obtained the prescribed aeronautical experience;
- Possess at least a current third class medical certification or, when a military pilot of the U.S. Armed Forces, show and present evidence of an up-to-date medical examination by the U.S. Armed Forces authorizing pilot status;
- Have an endorsement from an authorized instructor certifying that the applicant has received and logged training time within two (2) calendar months preceding the date of application in preparation for the practical test, and is prepared for the practical test;
- Receive and log ground training from an authorized instructor or complete a home-study course on the aeronautical knowledge areas of 14 CFR part 61.105 paragraph (b) that apply to the aircraft category and class rating sought; and
- Have an endorsement certifying that the applicant has demonstrated satisfactory knowledge of the subject areas in which the applicant was deficient on the airman knowledge test (not required for power aircraft to non-power aircraft or power aircraft to power aircraft for additional category or class rating).

Aircraft and Equipment Required for the Practical Test

The Private Pilot—Airplane applicant is required by 14 CFR 61.45 to provide an airworthy, certificated aircraft for use during the practical test. This section states that the aircraft must:

- Be of U.S., foreign, or military registry of the same category, class, and type, if applicable, for the certificate and/or rating for which the applicant is applying;
- Have fully functioning dual controls, except as provided for in 14 CFR 61.45(c) and (e); and
- Be capable of performing all Areas of Operation appropriate to the rating sought and have no operating limitations which prohibit its use in any of the Areas of Operation required for the practical test.

APPENDIX 3: INSTRUCTOR AND EVALUATOR ROLES AND RESPONSIBILITIES

Role of Instructor

Instructors are responsible for training the applicant to the acceptable standards in all subject matter areas, procedures, and maneuvers included in all the Tasks, even if the applicant is simply adding a category to his or her instrument rating.

Role of Evaluator

The evaluator who conducts the practical test is responsible for determining the applicant meets the acceptable standards of aeronautical knowledge, skills, and risk management for each Task in the appropriate ACS.

The FAA does not expect the evaluator to test every Knowledge and Risk Management element on the Practical Test, as the Knowledge Test assessed the applicant's mastery of these areas. The evaluator must, however, test at least one item in each of the Knowledge and Risk Management elements for every Task, emphasizing the topics (if any) the applicant missed on the Knowledge Test. The evaluator must test each item in the Skills elements unless otherwise noted in the Task.

Applicants must complete the oral portion of the practical test before the flight portion; however, oral questioning will continue throughout the flight. To the greatest extent practicable, evaluators shall test the applicant's ability to apply and correlate information, and only use rote questions when appropriate for the material being tested.

If the evaluator determines that a Task is incomplete, or the outcome is uncertain, the evaluator may require the applicant to repeat that Task, or portions of that Task. The FAA made this provision in the interest of fairness, but it does not mean that instruction, practice, or the repetition of an unsatisfactory task is permitted during the practical test.

The evaluator will assess the applicant's use of visual scanning and collision avoidance procedures throughout the entire test.

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APPENDIX 4: ADDITIONAL RATING TASK TABLES

To be developed.

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APPENDIX 5: PRACTICAL TEST CHECKLIST

Applicant's Practical Test Checklist

Appointment with Evaluator

Evaluator's Name: _____

Location: _____

Date/Time: _____

ACCEPTABLE AIRCRAFT

- ☐ Aircraft Documents:
  - ☐ Airworthiness Certificate
  - ☐ Registration Certificate
  - ☐ Operating Limitations
- ☐ Aircraft Maintenance Records:
  - ☐ Logbook Record of Airworthiness Inspections and AD Compliance
- ☐ Pilot's Operating Handbook, FAA-Approved Aircraft Flight Manual

PERSONAL EQUIPMENT

- ☐ View-Limiting Device
- ☐ Current Aeronautical Charts (Printed or Electronic)
- ☐ Computer and Plotter
- ☐ Flight Plan Form
- ☐ Flight Logs
- ☐ Current AIM, Airport Facility Directory, and Appropriate Publications

PERSONAL RECORDS

- ☐ Identification—Photo/Signature ID
- ☐ Pilot Certificate
- ☐ Current Medical Certificate
- ☐ Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor's Signature
- ☐ Original Knowledge Test Report
- ☐ Pilot Logbook with appropriate Instructor Endorsements
- ☐ FAA Form 8060-5, Notice of Disapproval (if applicable)
- ☐ Letter of Discontinuance (if applicable)
- ☐ Approved School Graduation Certificate (if applicable)
- ☐ Evaluator's Fee (if applicable)

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APPENDIX 6: REFERENCES

To be developed.

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APPENDIX 7: ABBREVIATIONS AND ACRONYMS

To be developed.

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